

Sci-Tech Connections

*Scope and Sequence
Kindergarten*

Sci Tech Connections Scope and Sequence - Kindergarten

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Treasures</i>	1	Treasure Sort	sorting, comparing, classifying, planning, analyzing, describing, using fine motor control	Does the child ... – sort the objects into two groups? – describe attributes of sets? – recognize which set is larger? – share work with others and guess their sorting rules?	<ul style="list-style-type: none"> • box of treasures • sorting circles (hoops, string, or circles on paper) 	For all the Activities in Treasures- About 3 weeks, depending on student interest
<i>Treasures</i>	2	Getting to Know the Treasures	comparing, sorting, classifying, analyzing, describing, questioning, communicating	Does the child ... – identify the names of the treasures? – know the function of the treasures? – identify similarities between two treasures? differences?	<ul style="list-style-type: none"> • box of treasures 	
<i>Treasures</i>	3	It's in the Touch	sorting, comparing, classifying, questioning, describing, analyzing	Does the child ... – use the sense of touch to identify objects? – begin to describe objects using only the sense of touch?	<ul style="list-style-type: none"> • box of treasures • feely box • treasure word/drawing cards 	
<i>Treasures</i>	4	Places for Treasures	comparing, sorting, classifying, predicting, spatial reasoning, describing	Does the child ... – place the treasures on the outlines? – choose a treasure and try different outlines or change the treasure if it does not fit the first outline? – turn the treasure around when needed to fit the outline?	<ul style="list-style-type: none"> • box of treasures • activity board (with outlines of treasures) 	
<i>Treasures</i>	5	Treasures by Size	sorting, comparing, classifying, questioning, describing, analyzing	Does the child ... – compare two objects by size? – order three objects by size? – order more than three objects? – order by length and volume? – use the language of comparing?	<ul style="list-style-type: none"> • box of treasures • order cards (optional) • balance scale 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Treasures</i>	6	Treasure Boxes	sorting, ordering	Does the child ... – demonstrate one-to-one correspondence? – count to 10? – order numbers? – recognize numbers?	<ul style="list-style-type: none"> • treasure boxes with dots to indicate 1 to 10 • treasures to put in boxes 	see page 1
<i>Treasures</i>	7	Treasure Map	predicting, spatial reasoning, observing, following directions	Is the child ... – aware of different areas of the school? – aware of the people who work in the school building?	<ul style="list-style-type: none"> • cards with map and directions (pages I-30 to I-33) • book, Simon Finds a Treasure 	
<i>Treasures</i>	8	Treasure Trail Game Board	organizing, planning, communicating	Does the child ... – follow the directions? – work cooperatively? – move the correct number of spaces? – count on from the space?	<ul style="list-style-type: none"> • game board (pages I-36 and I-37) • treasure cards (page I-38) • dice or spinner • playing markers 	
<i>Treasures</i>	9	Buried Treasure	classifying, analyzing, describing, asking questions, using fine motor control, interacting, predicting, communicating	Does the child ... – work carefully? – describe what he/she is doing? – begin to describe the attributes of the treasure?	<ul style="list-style-type: none"> • variety of children’s paintbrushes • variety of tools (toothpicks, toothbrushes, tweezers) • artifacts 	
<i>Treasures</i>	10	Mining for Treasures	estimating, investigating, examining, using fine motor control, counting, communicating	Does the child ... – follow directions? – persevere? – participate willingly in the activity? – count the chocolate chips?	<ul style="list-style-type: none"> • chocolate chip cookies • toothpicks 	
<i>Treasures</i>	11	Ocean Treasures	observing, describing, exploring, experimenting, identifying characteristics of objects, communicating	Does the child ... – demonstrate curiosity and a willingness to explore and experiment? – express thoughts and share experiences? – ask questions?	<ul style="list-style-type: none"> • aquarium or clear plastic jug or bowl • seashells, small plastic figures, plastic fish • plastic plants • colored stones or aquarium gravel 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Treasures</i>	12	Treasure bags	matching, sorting, comparing, classifying, questioning, analyzing, using the language of probability, communicating	Does the child ... – remove one block at a time? – record the data appropriately? – identify one-to-one correspondence? – interpret data on a graph?	<ul style="list-style-type: none"> • paper bag • different-colored cubes • marker • Graphing Chart (BLM B-8) or Tally Sheet (BLM B-7) 	
<i>Spinners</i>	13	Dance Away	feeling, presenting, listening, composing, recognizing	Does the child ... – attempt the task willingly? – recognize pattern/sequence? – demonstrate self-control?	<ul style="list-style-type: none"> • picture book such as Dance Away or adapted version of Teddy Bear, Teddy Bear 	For all the Activities in Spinners- About 3 weeks, depending on student interest
<i>Spinners</i>	14	Salad Spinner Art	exploring, observing, describing, investigating, exhibiting, discussing	Does the child ... – experiment with techniques and materials? – identify ways in which colors mix? – follow directions? – work cooperatively and independently?	<ul style="list-style-type: none"> • inexpensive salad spinner • squirt bottles of watery paint • round coffee filters or construction paper cut into round pieces 	
<i>Spinners</i>	15	Marble Spin	observing, wondering, predicting, reasoning, anticipating, relating	Does the child ... – engage as an active participant? – volunteer answers? – hypothesize? – follow the rules of conversation?	<ul style="list-style-type: none"> • large clear plastic bowl with rim • marble 	
<i>Spinners</i>	16	Spinning Spinners	observing, discussing, testing, predicting, showing, comparing	Does the child ... – follow instructions? – cooperate with others? – verbalize as she/he works? – comfortably predict what will happen? – record what happens?	<ul style="list-style-type: none"> • bristol board • small pencils • colored markers • cutout paper spinners – two equal sides/two unequal sides (see page II-30) • activity sheet (page II-29) • interlocking colored cubes (optional) 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Fairy Tales</i>	17	Castle Building	thinking, inventing, interacting, choosing, reasoning, estimating, persisting, building, problem solving, using fine motor control	Does the child ... – plan what to do? – use tools safely and appropriately? – solve problems? – verbalize as she/he works? – communicate needs to peers and adults?	<ul style="list-style-type: none"> • variety of junk and found materials • paper • glue • tape • scissors 	For all the Activities in Fairy Tales- About 3 weeks, depending on student interest
<i>Fairy Tales</i>	18	Story Map	considering, sorting, constructing, visualizing, connecting, reporting	Does the child ... – demonstrate good use of space? – include all important parts of the story? – sequence the places in the story? – demonstrate fine motor control?	<ul style="list-style-type: none"> • sheets of paper 17 in x 11 in (45 cm x 30 cm) • markers, crayons • small labels 	
<i>Fairy Tales</i>	20	Twisted Tales	reading, assessing, comparing, judging, celebrating, retelling, critiquing, interpreting	Does the child ... – notice similarities/differences among the tales? – identify basic story structure? – verbalize differences? – create his or her own version of the fairy tale?	<ul style="list-style-type: none"> • variety of traditional and twisted fairy tales, including several versions of the same tale • Post-it notes • flip books, accordion books • markers • crayons 	
<i>Fairy Tales</i>	21	Sound Effects	thinking, pondering, experimenting, composing, listening, expressing	Does the child ... – choose appropriate sounds? – make a sound at the appropriate time? – use creativity in creating sound? – move in response to the tempo and mood in sound?	<ul style="list-style-type: none"> • variety of musical instruments • tape recording of sounds • tape recorder to tape sounds • found materials (e.g., bells, combs, egg beater, tissue paper, alarm clock, metal spoons, etc.) 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Denise Fleming - An Author/Illustrator Story</i>	22	Perspectives	observing, designing, reasoning, comparing, viewing	Does the child ... – understand the concept of perspective? – identify different viewpoints?	<ul style="list-style-type: none"> • book, <i>In the Tall, Tall Grass</i> • safety goggles • two sizes of paper 8 1/2 in x 11 in and 17 in x 24 in (21.5 cm x 28 cm and 45.5 cm x 61 cm) • large drawing paper • crayons or markers 	For all the Activities in Denise Fleming- About 3 weeks, depending on student interest
<i>Denise Fleming - An Author/Illustrator Story</i>	23	Rainbow Squish	observing, discussing, examining, describing, reporting, comparing	Does the child ... – follow directions? – show interest and persevere with activity? – notice different shades?	<ul style="list-style-type: none"> • red Rainbow Squish • yellow Rainbow Squish • blue Rainbow Squish • one small ziploc bag per child 	
<i>Denise Fleming - An Author/Illustrator Story</i>	24	Lullaby and Good Night	interpreting, classifying, pondering, presenting, expressing	Does the child ... – identify characteristics of lullabies? – show appreciation of music? – recall and repeat familiar songs?	<ul style="list-style-type: none"> • audiotape of lullabies • book, <i>Time to Sleep</i> 	
<i>Denise Fleming - An Author/Illustrator Story</i>	25	Denise Fleming Fan Club	observing, classifying, comparing, discussing, analyzing	Does the child ... – identify specific aspects of Denise Fleming books (simple, large pictures/bright colors/animals/ based on nature)? – make connections among the books?	<ul style="list-style-type: none"> • selection of Denise Fleming books (see page IV-20) • Denise Fleming sheet (page IV-32) • chart paper • markers 	
<i>Rolling Along</i>	26	Rhyme Time	thinking, discussing, comparing, interacting, understanding	Does the child ... – identify rhyming words? – add words to list independently? – search out rhyming words? – join in with rhymes?	<ul style="list-style-type: none"> • rhyming book about wheels such as <i>Duck in a Truck</i> or <i>Sheep in a Jeep</i> • chart paper • markers 	For all the Activities in Rolling Along- About 3 weeks, depending on student interest

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Rolling Along</i>	27	Wheels and Treads	investigating, developing fine motor skills, persisting, examining, reasoning	Does the child ... – follow directions? – discuss similarities and differences in patterns? – manage own behavior and work responsibly?	<ul style="list-style-type: none"> • variety of small wheeled vehicles • large cartridge paper or construction paper 17 in x 24 in (45 cm x 60 cm) • paint in various colors set out on paper plates 	
<i>Rolling Along</i>	28	Roll On	estimating, predicting, showing, reporting, inquiring	Does the child ... – investigate with simple machines? – notice differences between the ramps? – compare distances the balls travel? – ask questions and test ideas?	<ul style="list-style-type: none"> • collection of various sized/kinds of balls (Ping-Pong, whiffle, tennis, small rubber) or variety of vehicles • two wooden ramps, one with added carpet (see Helpful Hints) 	
<i>Rolling Along</i>	29	Traffic Signal Cookies	looking, constructing, sharing, discussing, noticing	Does the child ... – follow directions? – recognize common traffic signals? – order traffic signal colors correctly?	<ul style="list-style-type: none"> • graham wafers • red, yellow, and green candies • icing or cream cheese 	
<i>Ready, Set ... Cook</i>	30	Pancake Pizzaz	observing, trying out, interacting, describing, choosing	Does the child ... – follow directions? – use tools safely? – identify energy sources? – work with others cooperatively? – identify safe/unsafe situations?	<ul style="list-style-type: none"> • book, If You Give a Pig a Pancake • griddle • ingredients for pancakes • toppings 	For all the Activities in Ready, Set ...Cook- About 3 weeks, depending on student interest
<i>Ready, Set ... Cook</i>	31	Red Is Best	sorting, comparing, choosing, making	Does the child ... – take turns? – use utensils appropriately?	<ul style="list-style-type: none"> • book, Red Is Best or Those Green Things • variety of red foods (red grapes, strawberries, watermelon, red apples, cherries). • alternatively bring in green foods for the book Those Green Things • bowl • kitchen knife • spoon 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Ready, Set ... Cook</i>	32	Spaghetti Toss	counting, cutting, pasting, designing, creating	Does the child ... – share materials? – have a plan? – investigate techniques and materials	<ul style="list-style-type: none"> • cooked spaghetti noodles (see Helpful Hints) • red (spaghetti sauce) paint or green (pesto sauce) paint mixed with glue • variety of colors of construction paper or paper plates to serve as a base • glitter (optional) • old pot or bowl to mix noodles and paint in • book, <i>Plain Noodles</i> or <i>More Spaghetti, I Say</i> 	
<i>Ready, Set ... Cook</i>	33	Eggs-periments	observing, predicting, wondering, speculating, reporting	Does the child ... – observe changes in materials? – ask questions? – describe differences?	<ul style="list-style-type: none"> • hard-cooked, shelled eggs (4 or 5) • orange soda, tea, beet juice, grape soda • 16 fl oz (500 ml) jars with lids 	
<i>Day/Night</i>	34	Going Batty	inquiring, re-searching, discussing, describing, reporting	Does the child ... – make a choice without assistance? – formulate a plan? – present ideas appropriately?	<ul style="list-style-type: none"> • collection of bat books, fiction and nonfiction • variety of paper and writing tools 	For all the Activities in Day/Night- About 3 weeks, depending on student interest
<i>Day/Night</i>	35	Goodnight Moon Room	thinking, creating, presenting, discussing, describing	Does the child ... – identify familiar objects? – write simple messages? – make good use of space on paper?	<ul style="list-style-type: none"> • book, <i>Goodnight Moon</i> • paper 17 in x 24 in (45 cm x 60 cm) • photocopied strips of paper with sentence stem, Goodnight_____ . (page VIII-35) • markers • crayons 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Day/Night</i>	36	Sun and Moon	choosing, constructing, describing, examining, comparing	Does the child ... – listen and respond to stories? – show skills in cutting and pasting? – make a choice independently? – share materials?	<ul style="list-style-type: none"> • yellow plastic foam containers (egg cartons or meat trays) • construction paper 17 in x 24 in (45 cm x 60 cm) to serve as background (suggested colors are yellow and blue) • crayons • glue • large circles of dark blue and yellow construction paper 	
<i>Day/Night</i>	37	Me and My Shadow	describing, observing, reasoning, investigating, discovering	Does the child ... – work with others? – notice changes?	<ul style="list-style-type: none"> • sidewalk chalk • sunny day • asphalt 	
<i>Mem Fox</i>	38	Zooscape	exploring, investigating, questioning, thinking, imagining, displaying, seeking	Does the child ... – attempt new tasks willingly? – explore and investigate various techniques? – communicate thoughts and ideas?	<ul style="list-style-type: none"> • tissue paper • folding paper • thinned glue (water and glue) • watercolor paints • paintbrush • thin-tipped markers 	For all the Activities in Mem Fox- About 3 weeks, depending on student interest
<i>Mem Fox</i>	39	Memory Box	observing, considering, planning, searching, describing, relating, reflecting	Does the child ... – contribute to discussions appropriately? – choose suitable items to include?	<ul style="list-style-type: none"> • book, Wilfrid Gordon McDonald Partridge • individual shoeboxes (one per child) • markers • stickers • stamp • stars • tissue • construction paper • small photo of each child 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Mem Fox</i>	40	Ahoy Matey!	creating, constructing, designing, comparing, interacting	Does the child ... – cooperate and collaborate with others? – work as part of a group? – take on a new role, i.e., pirate?	<ul style="list-style-type: none"> • book, Tough Boris • construction paper • scissors • glue and tape • a variety of cardboard boxes • big blocks • old bed sheets 	
<i>Mem Fox</i>	41	String Me a Line	creating, describing, exploring, investigating	Does the child ... – participate willingly? – investigate by creating new shapes and designs? – exhibit self-control?	<ul style="list-style-type: none"> • book, Straight Line Wonder • strings of different thicknesses • cartridge paper folded in half • paint • pie plates or containers to put paint in 	
<i>Snails and Shells</i>	42	Pond Study	classifying, sorting, observing, wondering, describing, reporting	Does the child ... – follow directions? – make observations? – identify pond creatures? – show care and respect for the natural environment?	<ul style="list-style-type: none"> • variety of clear containers • nets • scoops • magnifying glasses • book, <i>All Eyes on the Pond</i> 	For all the Activities in Snails and Shells- About 3 weeks, depending on student interest
<i>Snails and Shells</i>	43	Counting Book	counting, creating, ordering, persevering, constructing, presenting	Does the child ... – listen and respond to stories? – identify and make a counting pattern? – attempt new tasks willingly?	<ul style="list-style-type: none"> • flip books (See Helpful Hints) • markers or crayons • counting books such as <i>One Lonely Seahorse</i> or <i>How Many Snails</i> 	
<i>Snails and Shells</i>	44	Who Lives Here?	listening, choosing, planning, discussing, making, celebrating,	Does the child ... – demonstrate responsibility? – show pride in his/her achievements? – participate willingly?	<ul style="list-style-type: none"> • book, <i>A House Is a House for Me</i> • large blank sheet of paper • letter (page X-38) • markers or crayons 	

Name of Module	Lesson	Name of Activity	Main Concepts	Specific Expectations	Materials Required	Pacing
<i>Snails and Shells</i>	45	Making an Impression	observing, choosing, investigating, describing	Does the child ... – choose shells without assistance? – ask questions and demonstrate an interest in activity? – contribute to discussion? – make reasonable observations?	<ul style="list-style-type: none"> • various shells • muffin tins or Styrofoam cups • cupcake liners • plaster of Paris (Kraft) • petroleum jelly • rubber gloves 	see page 1